



**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

Applicant: Pocker et al.

Atty Docket: SJO990197US1

Serial No.: 09/721,264

Art Unit: 1773

Filing Date: November 21, 2000

Examiner: Stevan A. Resan

Title: **"ENERGY GRADIENT ION BEAM DEPOSITION OF CARBON OVERCOATS  
ON RIGID DISK MEDIA FOR MAGNETIC RECORDINGS"**

Box Non Fee Amendment  
Commissioner for Patents  
Washington, D.C. 20231

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**SUBSTITUTE PRELIMINARY AMENDMENT**

Sir:

Applicant submits this Substitute Preliminary Amendment in response to a Notice of Non-Compliant Amendment mailed November 8, 2002, to replace the Preliminary Amendment filed concurrent with Applicant's Response to the Restriction Requirement.

**In the Abstract**

Please replace the original Abstract with the Abstract set forth below. A marked-up copy of the Abstract is submitted herewith as Attachment B.

The fabrication of an overcoat layer starts with a low energy ion beam to avoid magnetic layer implantation problems, followed by higher deposition energies where the higher energy atoms are implanted into the previously formed lower energy overcoat layer, rather than the magnetic layer. The energy gradient ion beam deposition process therefore results in a thin overcoat layer that is denser than a comparable layer formed by low energy magnetron sputtering, and which overcoat layer provides good mechanical and corrosion protection to the magnetic layer.